## REMARKS

Re-examination and allowance of the above-captioned application is respectfully requested.

Applicants respectfully traverse the Examiner's 35 U.S.C. §102(e) rejection of the pending claims as being anticipated by U.S. Patent 5,727,122 to HOSODA et al. (hereinafter HOSODA).

Applicants respectfully submit that the present invention, as defined by the pending claims, is not anticipated by HOSODA. In setting forth this rejection, the Examiner asserts that column 7, lines 40-45 of HOSODA discloses Applicants' claimed waveform provider that provides a fixed waveform from a memory, and further, that column 6, lines 19-21 of HOSODA disclose Applicants' claimed convolutor that convolutes a fixed waveform with an input excitation vector to generate a modified excitation vector. Such assertions are incorrect. Applicants submit that the convolutor of the instant invention bears no resemblance to HOSODA's convolution circuitry or its processing mechanism.

In particular, Applicants submit that the convolution processing performed by HOSODA involves a stochastic excitation code vector and an impulse response of a non-fixed transfer function in accordance with mathematical formula (3). See column 4, lines 36-46 of HOSODA. Applicants submit that the transfer function of equation (3) of HOSODA generates the impulse response based upon "$a_{qj}$", which represents a quantization result of an LPC parameter (e.g., the output of the LPC inverse quantization circuit 104), which changes with every sub-frame. Thus, Applicants submit

that the impulse response is also unfixed and changes dynamically with every sub-frame.

On the other hand, Applicants submit that the presently claimed invention generates a modified excitation vector based upon a convolution of a fixed waveform that is pre-stored in a memory and an impulse response input. Employing a fixed waveform that is pre-stored in a memory enables a more efficient and faster excitation vector generation process.

Applicants note that column 6, lines 35-40 of HOSODA indicates that the dynamic transfer function referenced by the convolution circuitry is not limited to the one provided by equation (3), and that a transfer function composed of a vocal tract parameter, a pitch lag, or cascading two transfer functions are equally applicable. However, Applicants submit that using a vocal tract parameter or a pitch lag parameter, or both, would also result in an impulse response that is unfixed and changes with every sub-frame.

In view of the above, Applicants submit that HOSODA fails to disclose (let alone even suggest) Applicants' convoluting a fixed waveform with an input excitation vector to generate a modified excitation vector, or providing a fixed waveform from a memory. Accordingly, the Examiner is respectfully requested to withdraw the 35 U.S.C. §102 rejection, and to indicate the allowability of the pending claims over the art of record.

Applicants also respectfully traverse the Examiner's provisional rejection of the claims under the judicially created doctrine of double patenting over claims 9-15 of co-pending application number 09/843,939, and the judicially created doctrine of double patenting rejection over the claims of U.S. Patent 6,421,639 in view of HOSDA. By the

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current amendment, Applicants amend the claims to indicate that they are directed to a CELP speech encoder/decoder. Accordingly, Applicants submit that in view of the current amendment to the claims, they are patentability distinct from the applied art of record. Accordingly, the Examiner is respectfully requested to withdraw the double patenting rejections, and to pass the application to issue.
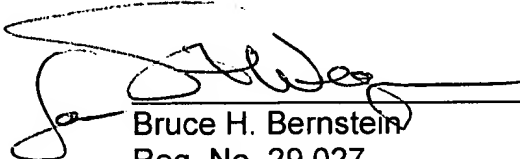
## SUMMARY AND CONCLUSION

In view of the fact that none of the art of record, whether considered alone or in combination, discloses or suggests the present invention as now defined by the pending claims, and in further view of the above amendments and remarks, reconsideration of the Examiner's action and allowance of the present application are respectfully requested and are believed to be appropriate.

Should the Commissioner determine that an extension of time is required in order to render this response timely and/or complete, a formal request for an extension of time, under 37 C.F.R. §1.136(a), is herewith made in an amount equal to the time period required to render this response timely and/or complete. The Commissioner is authorized to charge any required extension of time fee under 37 C.F.R. §1.17 to Deposit Account No. 19-0089.

If there should be any questions concerning this application, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,
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